GOVERNMENT OF INDIA
NEW AND RENEWABLE ENERGY
LOK SABHA

UNSTARRED QUESTION NO:200
ANSWERED ON:16.11.2007
SOLAR ENERGY
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Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) the quantum of solar energy generated in the country as on date;

(b) whether the Government proposes to give priority to solar energy over hydro power and thermal power;

(c) if so, the details thereof;

(d) the funds allocated to each State during the last three years to popularize solar energy; and

(e) the details of manufacturers /suppliers of solar energy systems in each State, as on date?

Answer

MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY(SHRI VILAS MUTTEMWAR)

(a),(b)&(c): India receives solar energy equivalent to over 5,000 trillion kWh per year. The daily average solar energy incident over India varies from 4 -7 kWh per square meter depending upon the location. Solar energy can be harnessed through two routes, namely solar photovoltaic (PV) and solar thermal, by direct conversion to electricity and heat energy respectively. The utilization of solar energy in the country is regularly increasing, however, the high initial cost of the solar energy systems is a barrier in its large-scale utilization. The estimated unit cost of electricity from grid connected solar energy plant is estimated to be around Rs. 12 −15 per unit, which is very high compared to electricity generated from conventional sources including thermal power and other renewable energy sources such as wind, small hydro and biomass.A total of 33 grid interactive solar photovoltaic power plants have been installed in the country with financial assistance from the Ministry. These plants, with aggregate capacity of 2.125 Megawatt peak (MWp), are estimated to generate about 2.5 million units of electricity in a year.In view of the high initial cost, at present, solar energy systems are mainly being used for stand-alone applications in lighting, telecommunication, small power requirements, battery charging, water heating and cooking etc. so far around 14 lakh solar photovoltaic systems aggregating to about 110 Megawatt peak solar photovoltaic module capacity have been installed in the country. In addition about 6 lakh solar cookers and about 20 lakh square metre collector area has been installed for solar water heating applications, which is equivalent to about 1400 Megawatt thermal capacity.

(d): The details of state-wise release of funds during the last three years for various solar energy programmes are given in Annexure-I.

(e): The state-wise details of manufacturers of solar photovoltaic cells/modules, solar cookers, flat plate solar thermal collector based water heating systems and suppliers of evacuated tube collector based water heating systems are given in Annexure II.